SUBMISSION

Submission to the Department of Climate Change, Energy, the Environment and Water

Submission to the Guarantee of Origin consultation

3 February 2023

The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

ATSE welcomes the opportunity to respond to the Department of Climate Change, Energy, the Environment and Water's consultation on the Guarantee of Origin (GO) scheme, which will measure, track, and verify greenhouse gas emissions across the supply chain. The GO scheme is an important initiative on the path to net zero emissions by 2050 and to position Australia as a low-carbon exporter. ATSE makes the following recommendations in response to the issues raised by the consultation paper:

Recommendation 1: That the Australian GO scheme is aligned with the European Union's GO scheme.

Recommendation 2: That the publicly available GO certificate register includes all calculation and ownership transfer information for each certificate.

Recommendation 3: That Product GOs cover a well-to-user system boundary.

Recommendation 4: That the design of the GO scheme is technology neutral.

Recommendation 5: That the first review of the GO scheme takes place after one year of operation.

Positioning Australia as a trusted low-carbon exporter

ATSE and the Australian Academy of Science's joint submission to the inquiry into Australia's transition to a green energy superpower recommended the development of a product-based carbon certification scheme (ATSE & AAS, 2022). While there are carbon accounting frameworks in place for corporate and national level estimates, there is presently a gap at the product level. Creating a framework, in alignment with international standards, would cement a reputation for low-carbon Australian products in the domestic and export economies. As product frameworks become more prevalent internationally, it will become critical for Australian products to have certifiable carbon emissions to be competitive. ATSE agrees with the proposal that the GO scheme must be able to demonstrate adherence to national market requirements. The Australian GO scheme should be not only aligned with the European Union's GO scheme, but also recognised under their scheme.

ATSE also agrees with the proposal that Australian Carbon Credit Units (ACCUs) will not be used for double counting of emissions reductions under the scheme, and that ACCUs will not be used to reduce the emissions intensity of products listed on GO certificates. ATSE also considers that the calculation of carbon emissions and any transfers of ownership of Renewable Energy GOs should be made visible in the Clean Energy Regulator's public register. This would provide transparency and avoid replicating the reputational issues surrounding ACCUs (ATSE, 2022). Building in this stringency from the outset will ensure the GO scheme has reputational integrity and reduces the capacity for greenwashing to occur.

Recommendation 1: That the Australian GO scheme is aligned with the European Union's GO scheme.

Recommendation 2: That the publicly available GO certificate register includes all calculation and ownership transfer information for each certificate.

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Enabling broad participation in the GO scheme

ATSE agrees with the proposed well-to-user system boundary, in which emissions from input materials, production, transport and storage are counted towards products' emissions intensity, while emissions from consumption, recycling and disposal are not included within scope. Inclusion of transport emissions is a critical step particularly for comparing the emissions of local products with imported products.

Reducing emissions from waste and working towards a circular economy are of critical importance to Australia's environmental ambitions. To work towards a circular economy, there is a need for jurisdictional harmonisation and for the development of a waste processing industry (ATSE, 2020). This considerable reform cannot be appropriately dealt with through the development of the GO scheme. Due to the nascence of the waste and resource recovery sector, inclusion of emissions from recycling and disposal could compromise accuracy and present a barrier for industry participation in the scheme.

Recommendation 3: That Product GOs cover a well-to-user system boundary.

Future-proofing the GO scheme

The design of the scheme should be technology neutral, as anticipated by the consultation paper. While the scheme will initially be applied to cover hydrogen, hydrogen energy carriers such as ammonia, and renewable electricity, the scheme design should consider applications to other products so that it may be expanded in future. More specific industry-led schemes and standards, including for hydrogen, can then extend upon the technology-neutral GO data.

The proposed cost recovery of the scheme from the sector necessitates that industry should be part of the initial design of the process to ensure it is not too burdensome. ATSE appreciates that the consultation paper foreshadows an opportunity for industry to provide feedback on the cost recovery program, and that cost recovery will be delayed until industry maturity.

The proposed review schedule is an important mechanism to ensure the scheme is working optimally. Considering the complexity of manufacturing and retail supply chains, ATSE considers that the first review be brought forward to one year after the scheme is in place.

Recommendation 4: That the design of the GO scheme is technology neutral.

Recommendation 5: That the first review of the GO scheme takes place after one year of operation.

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